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**Score: 20/25 (80.00%)**

**Code: 1998**

1. How many transistors are built inside the Very Large Scale Integration (VLSI) IC package?

- A) 1000 and above (Correct)**      B) 1 to 10 transistors  
 C) 10 to 100 transistors      D) 100 to 1000 transistors

2. Which IC package consist of 100 to 1000 transistors?

- A) Large scale integration (LSI)**      B) Small scale integration (SSI)  
 C) Medium scale integration (MSI) (Incorrect)      D) Very large scale integration (VLSI)

3. Which is the 3 terminal, negative voltage regulator IC?

- A) LM 320      B) LM 340  
**C) IC 7905 (Correct)**      D) IC 7812

4. Which three terminal voltage regulator IC has adjustable output?

- A) LM 100      B) LM 105  
 C) LM 305      **D) LM 317 (Correct)**

5. How much is the maximum load current of the negative voltage regulator IC 7912?

- A) 1.0 A (Incorrect)      B) 1.5 A  
**C) 2.0 A**      D) 0.55 A

6. What is the current rating of voltage regulator IC LM338K?

- A) 2A      B) 3A  
 C) 4A      **D) 5A (Correct)**

7. Which method is followed to troubleshoot the problem causing section by the symptom?

- A) Step by step method      B) Sensory test method  
 C) Trial and error method      **D) Logical approach method (Correct)**

8. Which type of voltage regulator is IC 723?

- A) Multipin variable voltage regulator (Incorrect)      B) Three pin positive voltage regulator  
 C) Three pin negative voltage regulator      **D) Three pin adjustable voltage regulator**

9. Which component filter the ripples in the rectifier circuit?

- A) DIAC      B) Diode

C) TRIAC

**D) Capacitor (Correct)**

10. Which parameter is maintained constant in zener diode?

- A) Power      B) Current  
**C) Voltage (Correct)**      D) Resistance

11. What is the meaning of maximum safe reverse voltage across a diode?

- A) PIV voltage (Correct)**      B) Knee voltage  
 C) Break down voltage      D) Reverse break down voltage

12. When does the zener diode begins to conduct in the reverse biased condition?

- A) When bias voltage reached 0.7V      B) After the barrier voltage cancelled  
 C) Voltage across zener reached 0.3V      **D) Voltage across it reached the zener voltage (Correct)**

13. What is the output pulse frequency of the full wave rectifier with input frequency of 50 Hz?

- A) 40 Hz      B) 60 Hz  
**C) 100 Hz (Correct)**      D) 200 Hz

14. What is the maximum safe reverse voltage rating of a diode?

- A) PIV voltage (Correct)**      B) Knee voltage  
 C) Break down voltage      D) Forward break down voltage

15. Which is the first step followed in troubleshooting of electronic circuit?

- A) Thermal test      B) Chemical test  
 C) Mechanical test      **D) Physical and sensory test (Correct)**

16. Which diode is used in low power communication circuits?

- A) Signal diodes (Correct)**      B) Rectifier diodes  
 C) Switching diodes      D) High power diodes

17. What is the disadvantage of the two diode full wave rectifier compared with a bridge rectifier?

- A) DC output level is higher  
**C) The need of bulky transformer (Correct)**
- B) The ripple frequency is higher  
D) Each diode carries half the load current
- C) Same frequency of the A/C input  
D) Three times the input A/C frequency (Incorrect)
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18. What is the process of adding impurities to a pure semiconductor material?

- A) **Doping (Correct)**  
C) Forming
- B) Etching  
D) Diffusion
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19. Which impurity is added to form P - type semiconductor material?

- A) Arsenic  
C) Antimony (Incorrect)
- B) **Gallium**  
D) Phosphorus
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20. Which impurity is added to pure semiconductor to form N-type material?

- A) Boron  
**C) Arsenic (Correct)**
- B) Indium  
D) Gallium
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21. What is the output frequency of the pulsating DC in a two diode fullwave rectifier?

- A) Half of the input A/C frequency  
**B) Double the input A/C frequency**

22. What is the name of the process of converting AC into DC voltage?

- A) Inverting  
C) Amplifying
- B) **Rectifying (Correct)**  
D) Demodulating
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23. What is the effect on the output voltage in a bridge rectifier circuits, with one diode open?

- A) Very low voltage  
C) Full output rated voltage
- B) No output DC voltage  
**D) Half of the rated output voltage (Correct)**
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24. What is the peak to peak voltage in a bridge rectifier circuit with load current of 10 mA, capacitance of 470 F and 50 Hz supply frequency?

- A) **0.213 v (Correct)**  
C) 2.134 v
- B) 1.525 v  
D) 3.567 v
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25. What is the minimum current rating of four diode bridge rectifier to supply load current of 1.8 Amp?

- A) 0.9 Amp  
C) 2.0 Amp
- B) **1.8 Amp (Correct)**  
D) 5.0 Amp
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